

IN THE SPECIFICATION:

Please amend the paragraph beginning on page 6, line 5 as follows:

The next step is brine/draw and brineslow/rinse. This step has two functions.

The first is to introduce brine into the treatment tank 12 from the brine tank 28 via the conduit 26. Brine is drawn into the treatment tank 12 for a number of minutes until a control valve (not shown, but well known in the art) in the brine tank 28 discontinues the brine draw.

At that time, a slow rinse cycle begins. During the brine draw step, the resin bed 14 of the water softener 10 is surrounded totally by sodium ions. As hard water used in the slow rinse enters the tank through the conduit 16, it starts to form a low sodium/high sodium front at the top of the tank 12. This front will gradually advance downward towards the bottom of the tank 10 and end. As is described in commonly assigned U.S. Patent No. 5,699,272, incorporated by reference herein, pairs of sensing and reference electrodes 36, 38, connected to the microprocessor 34, can be used to monitor the progress of the front towards the bottom of the tank 12. The electrode pairs 36, 38 are vertically spaced relative to each other for detecting the impedance difference of the solution in the water tank between the electrodes 36 which form a sensing cell R_s and the electrodes 38 which form a reference cell R_r . The monitoring of this front is preferably used to determine when the slow rinse cycle has concluded. It will also be noted that the electrodes 38 are in close operational proximity to a lower end of the conduit 22, through which flows both treated water and water intended for

the drain through conduit 30, depending on the position of the valve in the valve housing 18.

Upon conclusion of the slow rinse cycle, the softener 10 returns to the service cycle.

Please amend the paragraph beginning on page 13, line 1 as follows:

It is to be understood that the particular times set forth above can be varied and no limitation is intended by the specific times set forth herein. Further, flip flops or equivalent components could be utilized so that the first state could be an unbalanced state, the second state could be a balanced state, and the third state an unbalanced state. Another alternative is that instead of determining whether the probe is in a particular state and reloading the state timer if not in the particular state, the state timer could be loaded and then not started until the determination is made that the probe is in the particular state.